

# PATENT ABSTRACTS OF JAPAN

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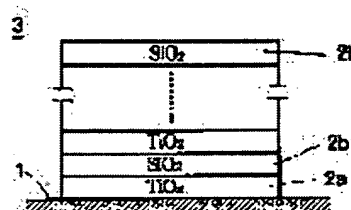
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## (54) OPTICAL MULTILAYER FILM AND INTERFERENCE FILTER

### (57)Abstract:

**PURPOSE:** To stabilize the optical property of an optical multilayer film provided on an interference filter or the like without being affected by moisture or the like by forming a thin film layer farthest away from a substrate from a material except a material substantially containing an oxide of Ti.

**CONSTITUTION:** Thin film layers 2a, 2b constituted of  $\text{TiO}_2$  and  $\text{SiO}_2$  respectively are alternately laminated on the substrate 1 and a thin film layer 2b constituted of  $\text{SiO}_2$  is formed as an outermost layer. By such a constitution the deterioration of optical property due to the absorption of moisture is prevented and stable optical property is obtained since the thin film layer 2b constituted of  $\text{TiO}_2$  easily absorbing moisture is not present on the outermost layer. And since the thin film layer 2a of  $\text{YiO}_2$  having catalytic action to an adhesive is not present on the outermost layer at the time of applying the adhesive on the outermost layer, the deterioration of the adhesive is prevented. And by constituting the interference filter by using the multilayer film 3 constituted in such a way, the interference filter having stable optical property is obtained.



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